Massoud Amin

Professor of Electrical & Computer Engineering University of Minnesota

Dr. Massoud Amin, IEEE and ASME Fellow, is a professor of electrical & computer engineering (ECE), and a University Distinguished Teaching Professor at the University of Minnesota. He is currently on leave from the Technological Leadership Institute (TLI.umn.edu), where he served as the Director and the Honeywell/H.W. Sweatt Chair in Technological Leadership (during March 2003 – Oct. 2018), in part, to complete his forthcoming book on "Powering Progress and Fuelling Prosperity: Resilience & Sensitivity in Face of Chaos," to continue his R&D in this area and to develop/deliver training, simulations, and new courses with a focus on proactive resilience and security of Complex Interdependent Networks/Systems.

He is the Chairman Emeritus of the IEEE Smart Grid, and, from June 2010 to August 2017, was a member of the Texas Reliability Entity (as board chairman), a utility industry regional entity that oversees reliability of ERCOT. From January 2013 to August 2017, he also served as a board member of the Midwest Reliability Organization (MRO, which oversees the reliability of the MISO region). Previously, he served on the Board on Infrastructure and the Constructed Environment (BICE) at the U.S. National Academy of Engineering (2001-07) and on the Board on Mathematical Sciences and Applications (BMSA) at the National Academy of Sciences (2006-09).

Before joining the University of Minnesota in March 2003, Dr. Amin was with the Electric Power Research Institute (EPRI) in Palo Alto, Calif. where he served as Lead, Mathematical & Information Sciences, and as Area Manager of Infrastructure Security, Grid Operations/Planning, and Energy Markets. After 9/11, he directed all security-related R&D for U.S. utilities. He has led research, development, and deployment of smart grids, and the enhancement of critical infrastructures' security during this period. In addition, Dr. Amin pioneered R&D in smart grids in 1998, and led the development of 24 technologies that transferred to industry. He is considered the father of the smart grid (https://tli.umn.edu/tli-blog/inspiration-behind-smart-grid-series-defining-moments). He received several awards including six EPRI Performance Recognition Awards for leadership in three areas, the 2002 President's Award for the Infrastructure Security Initiative, and twice received the Chauncey Award, the Institute's highest honour.

He has been recognized by his alma maters, receiving the 2011 Distinguished Alumni Achievement Award at Washington University, and the 2013 Outstanding Senior Alumni Award at the University of Massachusetts. He was the inaugural

Thought Leader of the Year, Energy Thought Summit 2015 (ETS '15); inducted into the University of Minnesota's Academy of Distinguished Teachers (2008); President's Award for the Infrastructure Security Initiative, EPRI (2002) twice – received the Chauncey Award, EPRI; Professor of the Year, Washington University in St. Louis (1992-1995). He is the author of more than 200 peer-reviewed publications, editor of seven collections of manuscripts, and served on the editorial boards of six academic journals.

Dr. Amin's professional contributions have primarily been in three areas:

- defence networks, combat & logistics systems – C4I (1982-1997)
- modernization, efficiency, security & resilience of interdependent national critical infrastructures, including power, energy, communications, finance, and transportation (1997-present), and
- technology/business/policy foresight & strategy (1997-present).

Dr. Amin holds B.S. (cum laude), and M.S. degrees in electrical and computer engineering from the University of Massachusetts-Amherst, and M.S. and D.Sc. degrees in systems science and mathematics from Washington University in St. Louis, Missouri. In summary, Dr. Amin has made transformative contributions in the areas of defence, critical infrastructures, technology, policy, and business. His passion is developing leaders and powering progress.